

FIRE PREVENTION AND BUILDING SAFETY COMMISSION
Department of Homeland Security

Written Interpretation of the State Building Commissioner

Interpretation #: CEB-2021-16-2020 IRC-R302.1(1)-(RWTC)

Note: For the purpose of making technical corrections, this interpretation replaces LSA Document #21-200.

Building or Fire Safety Law Interpreted

675 IAC 14-4.4 Indiana Residential Code, 2020 Edition, Table R302.1(1) EXTERIOR WALLS

Issue

Whether a reduction in size of an existing window opening in an exterior wall is regulated by the requirements for openings in proximity to property lines as described in Table R302.1(1) of the 2020 *Indiana Residential Code*.

Interpretation of the State Building Commissioner

A reduction in size of an existing window opening in an exterior wall is not regulated by Table R302.1(1) of the 2020 IRC, provided the infill is no less safe than the remainder of the window or existing wall.

Rationale

The question of applicability of Table R302.1(1) to any work at an existing window opening in an existing wall must be based on an examination of the nature of the work. As part of that examination, one must consider the intent of the work, as regulations differ between maintenance and alteration work, and one must also consider the extent of the work and its effect relative to issues of health, welfare and safety. We will begin with a summary of applicable regulations and definitions.

Applicable rules:

The scoping sections in Chapter 1 of the 2020 IRC discuss several categories of work, including:

R101 APPLICATION: The provisions of this code apply to the construction, prefabrication, alteration, addition, and remodel of detached one or two family dwellings and one family townhouses not more than 3 stories in height and their accessory structures. *[Remainder of section omitted for lack of relevance to the request.]*

R104 EXISTING CONSTRUCTION: For existing construction, see the General Administrative Rules ([675 IAC 12-4](#)), and local ordinance.

R105 ADDITIONS AND ALTERATIONS: Additions and alterations to any structure shall conform to that required for a new structure without requiring the existing structure to comply with all the requirements of this code. Additions or alterations shall not cause an existing structure to become unsafe.

As IRC Section R104 states, we must also examine Rule 4 of the GAR ([675 IAC 12-4](#)), as it focuses on work on existing structures. Here, section 9 is relevant to the issue of maintenance work, and section 12 to the issue of alterations. As these sections are rather lengthy, we will summarize their relevant content here:

[675 IAC 12-4-9-\(a\)](#) states that all existing buildings and their component parts and systems shall be maintained in accordance with the applicable rules of the commission that were in effect at the time the building, component parts or systems were constructed, installed, or altered.

[675 IAC 12-4-9-\(c\)](#) states that buildings and their component parts and systems that were constructed, installed, or altered prior to the adoption of applicable rules by the commission or by its predecessor agencies, shall be maintained in a condition that is at least as safe and sanitary as when they were constructed, installed, or altered.

[675 IAC 12-4-12-\(a\)](#) states that alterations must comply with the applicable currently adopted rules of the commission.

[675 IAC 12-4-12-\(b\)](#) states that alterations may be made to structures or their component parts and systems without requiring the entire structure to be brought into full compliance with all the currently adopted rules of the commission, provided 1) the building and its systems are not made to become noncompliant with the current rules, or those of its predecessor agencies in effect at the time of the original construction; 2) the building's fire

protection and detection systems are not reduced to a level less than that required under the current rules; 3) the building is not made to exceed the allowable area, number of stories, or height, under the current rules; and 4) certain specific currently adopted rules regarding glazing, interior finishes, and potable water distribution systems are met.

Applicable definitions:

There are several key terms that require definition for us to determine which rules apply and in what manner. In some cases, these terms are defined in the rules. In others they are not, and we must turn to their standard and ordinary use as reflected in the dictionary.

From 2020 IRC Section R202:

ALTERATION. Any construction, retrofit or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a building, electrical, gas, mechanical or plumbing system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit. For the definition applicable in Chapter 11, see Section N1101.6. [ref. *IRC Section R105*]

REPAIR. The reconstruction, replacement or renewal of any part of an existing building for the purpose of its maintenance or to correct damage.

From Merriam-Webster's online dictionary (<https://www.merriam-webster.com/>, last viewed April 22, 2021):

MAINTENANCE. The upkeep of property or equipment. [ref. *GAR 12-4-9 and IRC definition of "repair"*]

RECONSTRUCT. To construct again: such as to build or assemble (something) again. [ref. *IRC definition of "repair"*]

RENEWAL. To make like new: restore to freshness, vigor or perfection. [ref. *IRC definition of "repair"*]

RENOVATE. To restore to a former better state (as by cleaning, repairing, or rebuilding). [ref. *IRC definition of "alteration"*]

REPLACE. To take the place of, especially as a substitute or successor; to put something new in the place of. [ref. *IRC definition of "repair"*]

REPLACEMENT. One that replaces another especially in a job or function. [ref. *IRC definition of "repair"*]

RETROFIT. 1) to furnish (something, such as a computer, airplane, or building) with new or modified parts or equipment not available or considered necessary at the time of manufacture; 2) to install (new or modified parts or equipment) in something previously manufactured or constructed. [ref. *IRC definition of "alteration"*]

Given these regulations and definitions, it becomes clear that establishing the intent of the work is imperative. The question of when work on an existing structure is considered "maintenance" and when it is considered "alteration" is sometimes delicate, complex, and nuanced. The distinction is nonetheless critical to understand because it determines which sets of regulations apply to the work. Cases must be examined individually, and all contributing circumstances must be taken into consideration, and often the building official must utilize their best judgment and logic to weigh the consequences of the decisions made and actions required.

As we have seen, in [675 IAC 12-4-9](#) the GAR allows maintenance work to comply with the code of record, i.e., the rules in place at the time of the original installation, or if the original work predated adopted rules, it allows work in a manner at least as safe and sanitary as when originally constructed. In order for either of those rules to apply, then the proposed work must reasonably fit the definition of the term "maintenance." The "upkeep of property or equipment" generally implies the repair or refreshing of existing property or equipment that remains in place, or at most, replacement with identical entities or components thereof. If the intent of the project work is to repair items in place, or to replace them with identical components, then the GAR's rules on maintenance apply.

We have also seen that under [675 IAC 12-4-12](#), and under 2020 IRC Section R105, alteration work is required to comply with current codes, but only for the specific item or component that is being altered, while the rest of the structure or system is allowed to remain in compliance with its original rules. A replacement item or component that is not substantially similar to the original would generally fall under this category.

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Based on the relevant definitions, this leaves "alteration" as the best description of the window work. As we have seen, the rules for alteration work require compliance with the currently adopted codes for the specific item being altered. An altered window is required to comply with the current regulations for windows of its type and utilization, but just as importantly, installation of that window does not require other building components and assemblies to be brought into current compliance. This is where a critical distinction must be made. Table R302.1(1) regulates exterior walls and the openings allowed in them, based on proximity to property lines. It does not regulate windows *per se*. The installation of an altered window in an existing opening does not violate the table's restrictions on openings in the wall because it is not the wall being altered, but the window. If the wall itself had been altered, then the current restrictions on openings would apply.

Which leads to a final comment on alterations. Due to the nearly infinite varieties of sizes, shapes and configurations of existing windows, and the fact that manufactured replacements are often slightly different in those characteristics, it is not uncommon to find that the existing opening must be changed slightly. While it is not unreasonable from a technical view to consider that change to be an alteration of the exterior wall, we would suggest that when the opening is made smaller, judgment must be exercised by the building official. A brief survey of regulations related to allowable openings in proximity to property lines clearly suggests that a "solid" wall of even zero fire-resistance rating is considered safer than an opening. Given that, we maintain that no reasonable life safety purpose is served by holding in violation an installation in which existing openings in an otherwise untouched wall are made smaller by the alteration work.

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